

CLAIMS:

1. A method for updating an image on a bi-stable display, the method comprising:
 - applying at least a first shaking pulse (S1) to at least a portion of the bi-stable display (310, 400);
 - applying a first portion (R1) of a reset pulse to the at least a portion of the bi-stable display following the at least a first shaking pulse;
 - applying at least a second shaking pulse (S2) to the at least a portion of the bi-stable display following the first portion of the reset pulse; and
 - applying a second portion (R2) of the reset pulse to the at least a portion of the bi-stable display following the at least a second shaking pulse.
2. The method of claim 1, wherein:
 - the second portion of the reset pulse has an over-reset duration.
3. The method of claim 1, wherein:
 - the first portion of the reset pulse has a standard reset duration.
4. The method of claim 3, wherein:
 - the standard reset duration is proportional to a distance that particles in the bi-stable display must move to transition from their starting color state, prior to applying the at least a first shaking pulse, to an extreme black or white color state.
5. The method of claim 1, wherein:
 - an ending point of the first portion of the reset pulse is temporally adjacent to a starting point of the at least a second shaking pulse.
6. The method of claim 1, further comprising:
 - applying a drive pulse (D) to the at least a portion of the bi-stable display following the second portion of the reset pulse to drive the at least a portion of the bi-stable display to a desired color or greyscale level.
7. The method of claim 1, further comprising:
 - applying at least a third shaking pulse (S3) to the at least a portion of the bi-stable display following the second portion of the reset pulse;

wherein the at least a third shaking pulse has a shorter pulse width compared to a pulse width of the at least a first shaking pulse and the at least a second shaking pulse.

8. A program storage device tangibly embodying a program of instructions executable by a machine to perform a method for updating an image on a bi-stable display, the method comprising:

applying at least a first shaking pulse (S1) to at least a portion of the bi-stable display (310, 400);

applying a first portion (R1) of a reset pulse to the at least a portion of the bi-stable display following the at least a first shaking pulse;

applying at least a second shaking pulse (S2) to the at least a portion of the bi-stable display following the first portion of the reset pulse; and

applying a second portion (R2) of the reset pulse to the at least a portion of the bi-stable display following the at least a second shaking pulse.

9. An electronic reading device, comprising:

a bi-stable display (310, 400); and

a control (100) for updating an image on the bi-stable display by applying at least a first shaking pulse (S1) to at least a portion of the bi-stable display, applying a first portion (R1) of a reset pulse to the at least a portion of the bi-stable display following the at least a first shaking pulse, applying at least a second shaking pulse (S2) to the at least a portion of the bi-stable display following the first portion of the reset pulse, and applying a second portion (R2) of the reset pulse to the at least a portion of the bi-stable display following the at least a second shaking pulse.

10. The electronic reading device of claim 9, wherein:

the second portion of the reset pulse has an over-reset duration.

11. The electronic reading device of claim 9, wherein:

the first portion of the reset pulse has a standard reset duration.

12. The electronic reading device of claim 11, wherein:

the standard reset duration is proportional to a distance that particles in the bi-stable display must move to transition from their starting color state, prior to applying the first shaking pulse, to an extreme black or white color state.

13. The electronic reading device of claim 9, wherein:

an ending point of the first portion of the reset pulse is temporally adjacent to a starting point of the at least a second shaking pulse.

14. The electronic reading device of claim 9, wherein:

the control applies a drive pulse (D) to at least a portion of the bi-stable display following the second portion of the reset pulse to drive the at least a portion of the bi-stable display to a desired color or greyscale level.

15. The electronic reading device of claim 9, wherein:

the control applies at least a third shaking pulse (S3) to the at least a portion of the bi-stable display following the second portion of the reset pulse; and

the at least a third shaking pulse has a shorter pulse width compared to a pulse width of the at least a first shaking pulse and the at least a second shaking pulse.